

August 31, 2007

Rich Gannon  
DENR-Division of Water Quality, Planning Section  
1617 Mail Service Center  
Raleigh, NC 27699-1617

Re: Proposed Jordan Lake Reservoir Rules

Dear Mr. Gannon:

Attached are the complete comments and recommendations (summarized below) from the NC Forestry Association concerning the proposed rules for the Jordan Lake Reservoir. The NC Forestry Association is the state's oldest, and largest forest conservation organization representing over 4,000 forest landowners, managers, wood suppliers and manufacturers of wood and paper products. We appreciate this opportunity to comment on the proposed rules for the Jordan Lake Reservoir.

General Comments

- We have serious questions as to the validity and necessity of these proposed rules. As others have indicated, we believe the Jordan Lake nutrient response model is flawed and based on unreliable data.
- Nutrient transport to streams from properly managed forestland is generally at background or natural levels.
- Forestry operations are already regulated under the NC Sedimentation Pollution Control Act and required to comply with mandatory water quality performance measures to prevent accelerated erosion and transport of sediment to streams.
- Net uptake of nutrients by vegetation in forests, and with regards to this proposed rule, in buffers is limited except in young, rapidly growing forests that are producing net annual increases in wood biomass. Thus managing buffers to maintain such vegetation is important to controlling nitrogen transport from land to streams.

Recommendations

- In general, we support the proposed rules for forestry and forest harvesting along streams and water bodies.
- **However, it is critical that the proposed rule for forestry and timber harvesting contain a preemption on local regulation as was done in the state water supply watershed regulations**
- The prohibition on harvesting any tree that has exposed primary roots in the stream bank may, in fact, be counterproductive to water quality.
- Modification of the prohibition on tracked or wheeled equipment in Zone 1 may be appropriate.

Please let me know if you or your staff has any questions concerning our comments.

Sincerely,

Robert W. Slocum, Jr.  
Executive Vice President  
NC Forestry Association

## **COMMENTS OF THE NORTH CAROLINA FORESTRY ASSOCIATION ON THE PROPOSED RULES FOR THE JORDAN LAKE RESERVOIR**

As background, “forest” is the dominant land use in North Carolina. Forests cover 58% of the State’s 31 million acres of land. Much of our fresh water originates in forested watersheds. Along with this and other environmental benefits, our forests provide the raw material for the State’s largest manufacturing industry – forest products. It’s also worth noting that approximately 88% of our forestland is privately owned by more than 600,000 private landowners.

We have serious questions as to the validity and necessity of these proposed rules. As others have indicated, we believe the Jordan Lake nutrient response model is flawed and based on unreliable data. In fact, US Geological Survey data indicates that water quality in Jordan Lake is stable and may be improving. Also, given that North Carolina adopted water supply watershed regulations in the 1990’s that also required local governments to adopt rules and programs to protect water supply watersheds, we question why more rules are necessary.

Like the Neuse River and Tar-Pamlico river basins, elevated levels of nitrogen and phosphorous inputs to streams from various point and non-point sources are the primary concern in the Jordan Lake reservoir. Documents prepared for both the Neuse and Tar-Pamlico river basins found that nutrient transport to streams from properly managed forestland is generally at background or natural levels. It’s important to understand that background nutrient concentrations in streams are:

- Never zero;
- Reflect the character of the geology, soil, and natural forest vegetation of the watershed; and
- Are important to maintaining healthy aquatic plant and animal concentrations.

Research shows that transport of nitrogen and phosphorous to streams at levels elevated above background from forestland are minimal and very temporary. Forestry operations are already regulated under the NC Sedimentation Pollution Control Act and required to comply with mandatory water quality performance measures to prevent accelerated erosion and transport of sediment to streams. Data from the Division of Forest Resources shows a 94% statewide compliance rate with these measures.

Managing riparian buffers to maintain healthy, rapidly growing forest vegetation is a key factor in controlling transport of elevated levels of nutrients to streams from non-point sources. Elevated phosphorous levels are tied closely with sediment transport in surface flow of water. Control the sediment and keep it out of the stream and you control the phosphorous and keep it out of the stream. Nitrogen is transported via the surface and subsurface flow of water into streams. De-nitrification occurs in the soil and deep-rooted woody vegetation helps to maintain the optimal conditions for water infiltration and de-nitrification to occur in riparian buffers. Net uptake of nutrients by vegetation in forests, and with regards to this proposed rule, in buffers is limited except in young, rapidly growing forests that are producing net annual increases in wood biomass. Thus managing buffers to maintain such vegetation is important to controlling nitrogen transport from land to streams.

The proposed rules pertaining to forest harvesting in the Jordan Lake Reservoir area mirror the rules already in place for the Neuse River basin and the Tar-Pamlico river basin. **In general, we support the proposed rules for forestry and forest harvesting along streams and water bodies.** We believe the rules appropriately allow continued forest management within the proposed buffer areas in ways that will adequately protect, and in the long term, enhance water quality.

However, it is critical that the proposed rule for forestry and timber harvesting contain a preemption on local regulation as was done in the state water supply watershed regulations. As written, the rules only establish the base standards and requirements and then direct local governments to adopt rules. This would set the stage for dozens of variations of the same rule, creating confusion among landowners and operators and inevitably increasing operation costs. Forest product companies, wood suppliers and many landowners operate on a regional and statewide basis and when rules are adopted affecting these operations, they must be consistent.

Based on our experience with these rules in the Neuse and Tar-Pamlico river basins, we recommend examining two potential modifications. The prohibition on harvesting any tree that has exposed primary roots in the stream bank may, in fact, be counterproductive to water quality. In many cases, such trees will be the first to be blown down or damaged in severe storm events. This often causes immediate deposition of significant amounts of soil and sediment into the stream as well as creating a continued source of sedimentation for a significant period of time. We recommend that this prohibition be reconsidered and revised to allow for judgment in cutting trees on the stream ban that are unstable and likely to topple into the stream. Cutting hardwood trees and allowing for sprouting and regrowth maintains the root structure that aids in bank stability.

Likewise, modification of the prohibition on tracked or wheeled equipment in Zone 1 may be appropriate. Experience shows that such equipment can be used in these areas without causing sedimentation or erosion problems and current rules under the Sedimentation Pollution Control Act already cover this. Prohibiting equipment forces manual felling of timber in these areas which is inherently more dangerous for loggers. We urge the Division of Water Quality to work with the Division of Forest Resources, the NC Forestry Association and the Department of Labor to review this issue and consider revising the rules appropriately.

Finally, we want to comment on the concept of notification of timber harvesting which, at one time, was being considered as part of the Jordan Lake plan. We appreciate that this was removed and that the DWQ staff now understand it is neither needed nor practical.

We appreciate the opportunity to comment.